

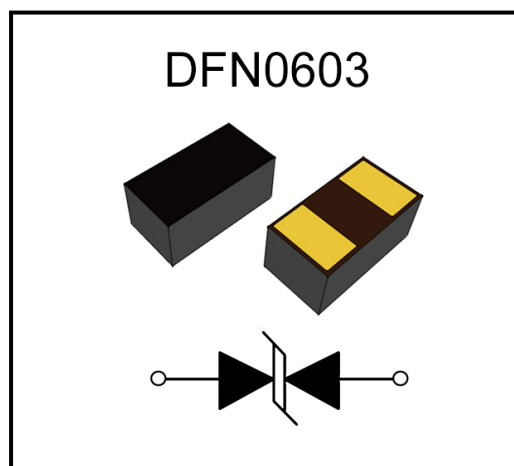
BNPESD0201-xxST

ESD Protection Diode

Features

- The best ESD protection for high speed ,high frequency and low voltage applications
- RoHS compliant and halogen free
- Ultra low capacitance, 0.05 pF (typ.)
- Low clamping voltage according to IEC61000-4-2
- Fast response time
- IEC61000-4-2 (ESD):Contact $\pm 8\text{kV}$
- IEC61000-4-2 (ESD):Air $\pm 15\text{kV}$
- Surface mount

Package



Applications

- USB2.0 and USB3.0
- Ultra-high-speed data line
- Sensitive interfaces lines
- High Definition Multi-media Interface(HDMI)
- Antenna applications
- 10/100/1000Mbit/s Ethernet

Mechanical Data

- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Ordering information

Order code	Package	Base qty	Delivery mode
BNPESD0201-xxST	DFN0603	15k	Tape and reel

Absolute Maximum Rating

Rating	Symler	Value	Units
ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 8	KV
ESD per IEC 61000-4-2 (Air)		± 15	
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}\text{C}$
Operating Temperature	T_O	-55 to + 125	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}\text{C}$

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Specifications are subject to change without notice.
Please refer to <http://www.born-tw.com> for current information.

Revision: 2022-Jan-1-A



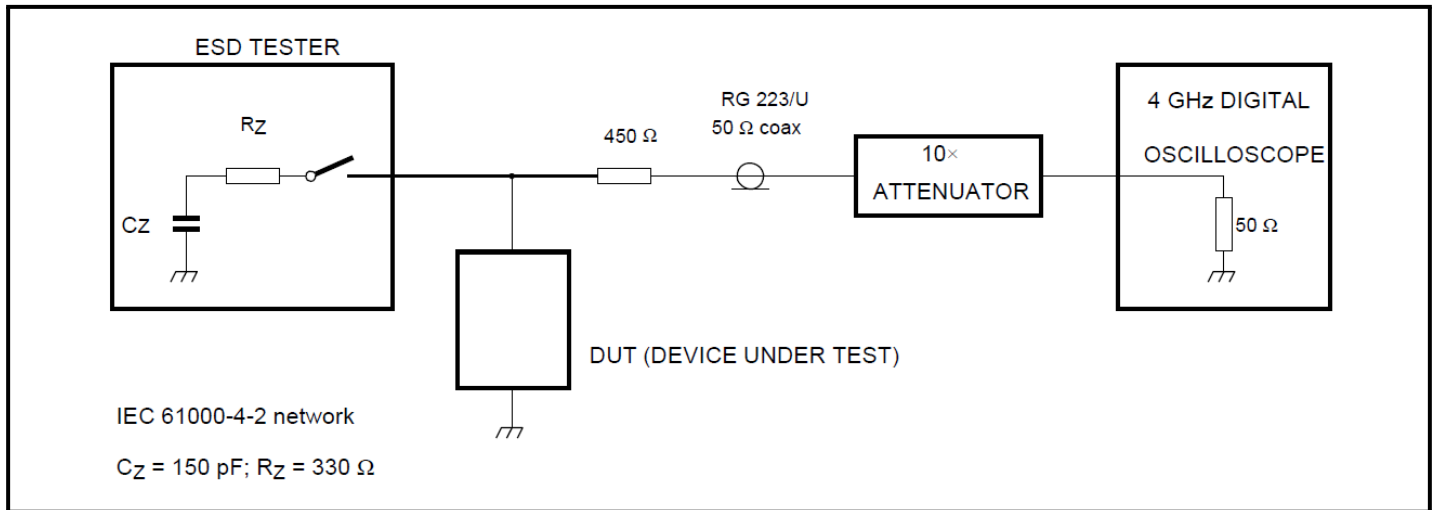
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ESD Protection Diode

Electrical Characteristics

Part NO.	Working Voltage	Typical ESD Trigger Voltage	Typical ESD Clamping Voltage at 60ns	Leakage Current (at Initial State)	Cap. Value @10MHz
Symbol	$V_{DC(max.)}$	$V_{trigger(typ.)}$	$V_{C(typ.)}$	I_{LDC}	$C(Typ.)$
Unit	V	V	V	μA	pF
BNPESD0201-05ST	5	300	35	<0.1	0.05
BNPESD0201-09ST	9	300	35	<0.1	0.05
BNPESD0201-12ST	12	300	35	<0.1	0.05
BNPESD0201-14ST	14	300	35	<0.1	0.05
BNPESD0201-15ST	15	300	35	<0.1	0.05
BNPESD0201-18ST	18	300	35	<0.1	0.05
BNPESD0201-24ST	24	300	35	<0.1	0.05
BNPESD0201-36ST	36	300	35	<0.1	0.05

ESD Clamping Test



BNPESD0201-xxST

ESD Protection Diode

Figure 1:ESD pulse wavefrom according to IEC 61000-

4-2

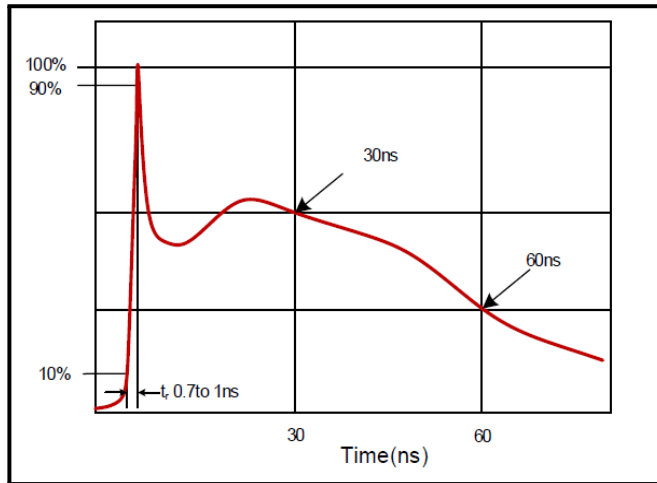


Figure 2:8kV Contact ESD pulse clampingper

IEC61000-4-2

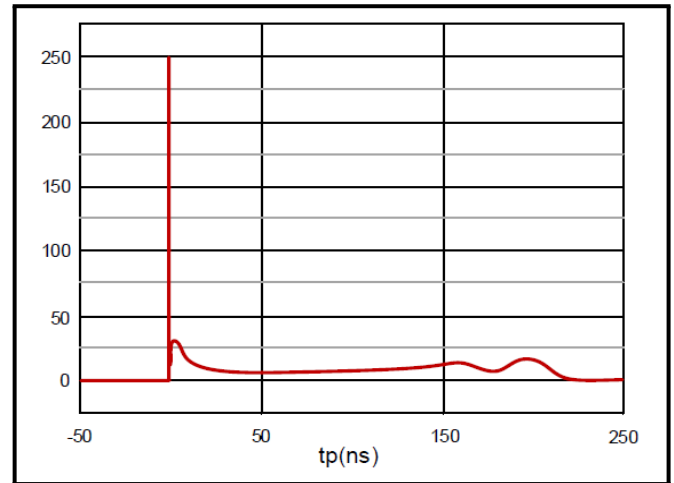
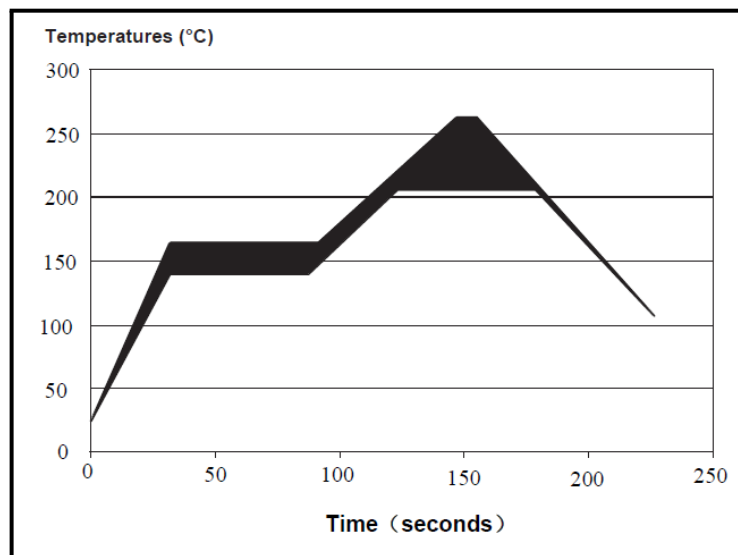


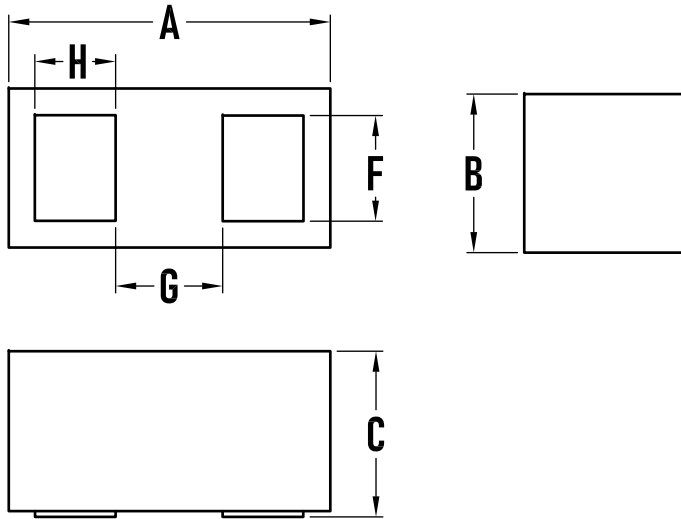
Figure 3:Solder Reflow Recommendations



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ESD Protection Diode

Outline Drawing - DFN0603



SYMBOL	MILLIMETERS		
	MIN.	Typ.	MAX.
A	0.55	0.60	0.65
B	0.25	0.30	0.35
C	0.25	0.30	0.35
H	0.18	0.20	0.22
F	0.255	0.275	0.295
G	0.16	0.18	0.20

